

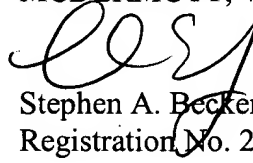
The amendments to Claims 1, 5, 6, 7, 11, 15, 16, and 21 are attached in Appendix A.

REMARKS

Entry of this preliminary amendment is respectfully requested.

Respectfully submitted,

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APPENDIX A

IN THE CLAIMS:

1. A document image processor comprising image inputting means preparing document images by reading a paper document, region dividing means dividing the document image into a plurality of regions, and title-region extracting means extracting title regions from the entire regions according to a region average character size equivalent to an average size of characters that is calculated per region divided by the region dividing means,

A1 wherein the title-region extracting means compares each region average character size and an extracting criteria respectively; the extracting criteria that is a total average character size multiplied by an extracting parameter; the total average character size calculated as a value equivalent to an average size of all characters included in the entire regions: and extracts as a title ~~region regions with the region average character size larger than the extracting criteria.~~

5. A document image processor according to claim 1, wherein the title-region extracting means calculates the extracting criteria on a plurality of levels by using the extracting parameters on a plurality of levels.

A2 6. A document image processor according to claim 1, wherein the title-region extracting means calculates the extracting criteria on a plurality of levels by using the extracting parameters on a plurality of levels and extracts each title region corresponding to each level attribute indicating the level of the extracting.

7. A document image processor according to claim 5 or 6, wherein the title-region extracting means determines the extracting parameters on a plurality of levels based on a ~~maximum value of the region average character size divided by the total average character size.~~

11. A document title extracting method of a document image processor comprising:

inputting and preparing document images by reading a paper document:

dividing a plurality of regions from a document image;

calculating a region average character size equivalent to the average size of characters per region; and

extracting title region from the entire regions based on the region average character size,

in which the step of calculating comprises calculating a total average character size equivalent to the average size of characters in the entire regions,

and further comprising comparing the region average character size and a extracting criteria that is a total average character size multiplied by an extracting parameter; and

in which the step of extracting tile region comprises extracting as a title region regions with the region average character size larger than the extracting criteria.

15. A document title extracting method of a document image processor according to claim 11, in which the step of extracting titles comprises calculating the extracting criterions on a plurality of levels by using the extracting parameters on a plurality of levels.

16. A document title extracting method of a document image processor according to claim 11, in which the step of extracting titles comprises calculating the extracting criterions on a plurality of levels by using the extracting parameters on a plurality of levels and extracting each title region corresponding to each level attribute indicating the level of the extracting.

21. A recording medium for recording programs comprising:

dividing document images prepared by reading a paper document into a plurality of regions:

calculating per region a region average character size equivalent to an average size of characters in a region and a total average character size equivalent to an average size of characters in the entire regions:

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comparing each region average character size and extracting criteria that is the total average character size multiplied by the extracting parameter; and

extracting regions with the region average character size larger than the extracting criteria as a title region.